



IFW16

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/705,633A

DATE: 10/07/2004
TIME: 09:37:01

Input Set : A:\568.1D1.TXT
Output Set: N:\CRF4\10072004\J705633A.raw

4 <110> APPLICANT: Madison, Edwin L
 6 <120> TITLE OF INVENTION: TISSUE TYPE PLASMINOGEN ACTIVATOR (t-PA)
 7 VARIANTS: COMPOSITIONS AND METHODS OF USE
 10 <130> FILE REFERENCE: TSRI 568.1D1
 12 <140> CURRENT APPLICATION NUMBER: US 10/705,633A
 13 <141> CURRENT FILING DATE: 2003-11-10
 15 <150> PRIOR APPLICATION NUMBER: US 09/600,985
 16 <151> PRIOR FILING DATE: 2000-11-13
 18 <150> PRIOR APPLICATION NUMBER: PCT/US97/20226
 19 <151> PRIOR FILING DATE: 1997-11-12
 21 <150> PRIOR APPLICATION NUMBER: US 60/030,655
 22 <151> PRIOR FILING DATE: 1996-11-12
 24 <160> NUMBER OF SEQ ID NOS: 12
 26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 527
 30 <212> TYPE: PRT
 31 <213> ORGANISM: Homo sapiens
 33 <400> SEQUENCE: 1
 34 Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met Ile Tyr Gln
 35 1 5 10 15
 36 Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn Arg Val Glu
 37 20 25 30
 38 Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser Val Pro Val
 39 35 40 45
 40 Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr Cys Gln Gln
 41 50 55 60
 42 Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu Gly Phe Ala
 43 65 70 75 80
 44 Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr Glu Asp Gln
 45 85 90 95
 46 Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser Gly Ala Glu
 47 100 105 110
 48 Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro Tyr Ser Gly
 49 115 120 125
 50 Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His Asn Tyr Cys
 51 130 135 140
 52 Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val Phe Lys Ala
 53 145 150 155 160
 54 Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys Ser Glu Gly
 55 165 170 175
 56 Asn Ser Asp Cys Tyr Phe Gly Asn Gly Ser Ala Tyr Arg Gly Thr His
 57 180 185 190

ENTERED

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58 Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Asn Ser Met Ile
59 195 200 205
60 Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala Gln Ala Leu
61 210 215 220
62 Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Ala Lys
63 225 230 235 240
64 Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr Trp Glu Tyr Cys
65 245 250 255
66 Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln Tyr Ser Gln Pro
67 260 265 270
68 Gln Phe Glu Ile Lys Gly Gly Leu Phe Ala Asp Ile Ala Ser His Pro
69 275 280 285
70 Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser Pro Gly Glu Arg
71 290 295 300
72 Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp Ile Leu Ser Ala
73 305 310 315 320
74 Ala His Cys Phe Gln Glu Arg Phe Pro Pro His His Leu Thr Val Ile
75 325 330 335
76 Leu Gly Arg Thr Tyr Arg Val Val Pro Gly Glu Glu Gln Lys Phe
77 340 345 350
78 Glu Val Glu Lys Tyr Ile Val His Lys Glu Phe Asp Asp Asp Thr Tyr
79 355 360 365
80 Asp Asn Asp Ile Ala Leu Leu Gln Leu Lys Ser Asp Ser Ser Arg Cys
81 370 375 380
82 Ala Gln Glu Ser Ser Val Val Arg Thr Val Cys Leu Pro Pro Ala Asp
83 385 390 395 400
84 Leu Gln Leu Pro Asp Trp Thr Glu Cys Glu Leu Ser Gly Tyr Gly Lys
85 405 410 415
86 Asp Glu Ala Leu Ser Pro Phe Tyr Ser Glu Arg Leu Lys Glu Ala His
87 420 425 430
88 Val Arg Leu Tyr Pro Ser Ser Arg Cys Thr Ser Gln His Leu Leu Asn
89 435 440 445
90 Arg Thr Val Thr Asp Asn Met Leu Cys Ala Gly Asp Thr Arg Ser Gly
91 450 455 460
92 Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly Asp Ser Gly Gly
93 465 470 475 480
94 Pro Leu Val Cys Leu Asn Asp Gly Arg Met Thr Leu Val Gly Ile Ile
95 485 490 495
96 Ser Trp Gly Leu Gly Cys Gly Gln Lys Asp Val Pro Gly Val Tyr Thr
97 500 505 510
98 Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met Arg Pro
99 515 520 525
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 527
104 <212> TYPE: PRT
105 <213> ORGANISM: Homo sapiens
107 <400> SEQUENCE: 2
108 Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met Ile Tyr Gln
109 1 5 10 15

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110 Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn Arg Val Glu
111 20 25 30
112 Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser Val Pro Val
113 35 40 45
114 Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr Cys Gln Gln
115 50 55 60
116 Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu Gly Phe Ala
117 65 70 75 80
118 Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr Glu Asp Gln
119 85 90 95
120 Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser Gly Ala Glu
121 100 105 110
122 Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro Tyr Ser Gly
123 115 120 125
124 Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His Asn Tyr Cys
125 130 135 140
126 Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val Phe Lys Ala
127 145 150 155 160
128 Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys Ser Glu Gly
129 165 170 175
130 Asn Ser Asp Cys Tyr Phe Gly Asn Gly Ser Ala Tyr Arg Gly Thr His
131 180 185 190
132 Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Asn Ser Met Ile
133 195 200 205
134 Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala Gln Ala Leu
135 210 215 220
136 Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Ala Lys
137 225 230 235 240
138 Pro Trp Cys His Val Leu Lys Asn Arg Arg Leu Thr Trp Glu Tyr Cys
139 245 250 255
140 Asp Val Pro Ser Cys Ser Thr Cys Gly Leu Arg Gln Tyr Ser Gln Pro
141 260 265 270
142 Gln Phe Glu Ile Lys Gly Leu Phe Ala Asp Ile Ala Ser His Pro
143 275 280 285
144 Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg Ser Pro Gly Glu Arg
145 290 295 300
146 Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser Cys Trp Ile Leu Ser Ala
147 305 310 315 320
148 Ala His Cys Phe Gln Glu Arg Phe Pro Pro His His Leu Thr Val Ile
149 325 330 335
150 Leu Gly Arg Thr Tyr Arg Val Val Pro Gly Glu Glu Gln Lys Phe
151 340 345 350
152 Glu Val Glu Lys Tyr Ile Val His Lys Glu Phe Asp Asp Asp Thr Tyr
153 355 360 365
154 Asp Asn Asp Ile Ala Leu Leu Gln Leu Lys Ser Asp Ser Ser Arg Cys
155 370 375 380
156 Ala Gln Glu Ser Ser Val Val Arg Thr Val Cys Leu Pro Pro Ala Asp
157 385 390 395 400
158 Leu Gln Leu Pro Asp Trp Thr Glu Cys Glu Leu Ser Gly Tyr Gly Lys

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159	405	410	415
160	Glu Glu Ala Leu Ser Pro Phe Tyr Ser Glu Arg Leu Lys Glu Ala His		
161	420	425	430
162	Val Arg Leu Tyr Pro Ser Ser Arg Cys Thr Ser Gln His Leu Leu Asn		
163	435	440	445
164	Arg Thr Val Thr Asp Asn Met Leu Cys Ala Gly Asp Thr Arg Ser Gly		
165	450	455	460
166	Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly Asp Ser Gly Gly		
167	465	470	475
168	480	485	490
169	Pro Leu Val Cys Leu Asn Asp Gly Arg Met Thr Leu Val Gly Ile Ile		
170	495	500	505
171	510	515	520
172	Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met Arg Pro		
173	525		
176	<210> SEQ ID NO: 3		
177	<211> LENGTH: 527		
178	<212> TYPE: PRT		
179	<213> ORGANISM: Homo sapiens		
181	<400> SEQUENCE: 3		
182	Ser Tyr Gln Val Ile Cys Arg Asp Glu Lys Thr Gln Met Ile Tyr Gln		
183	1	5	10
			15
184	Gln His Gln Ser Trp Leu Arg Pro Val Leu Arg Ser Asn Arg Val Glu		
185	20	25	30
186	Tyr Cys Trp Cys Asn Ser Gly Arg Ala Gln Cys His Ser Val Pro Val		
187	35	40	45
188	Lys Ser Cys Ser Glu Pro Arg Cys Phe Asn Gly Gly Thr Cys Gln Gln		
189	50	55	60
190	Ala Leu Tyr Phe Ser Asp Phe Val Cys Gln Cys Pro Glu Gly Phe Ala		
191	65	70	75
			80
192	Gly Lys Cys Cys Glu Ile Asp Thr Arg Ala Thr Cys Tyr Glu Asp Gln		
193	85	90	95
194	Gly Ile Ser Tyr Arg Gly Thr Trp Ser Thr Ala Glu Ser Gly Ala Glu		
195	100	105	110
196	Cys Thr Asn Trp Asn Ser Ser Ala Leu Ala Gln Lys Pro Tyr Ser Gly		
197	115	120	125
198	Arg Arg Pro Asp Ala Ile Arg Leu Gly Leu Gly Asn His Asn Tyr Cys		
199	130	135	140
200	Arg Asn Pro Asp Arg Asp Ser Lys Pro Trp Cys Tyr Val Phe Lys Ala		
201	145	150	155
			160
202	Gly Lys Tyr Ser Ser Glu Phe Cys Ser Thr Pro Ala Cys Ser Glu Gly		
203	165	170	175
204	Asn Ser Asp Cys Tyr Phe Gly Asn Gly Ser Ala Tyr Arg Gly Thr His		
205	180	185	190
206	Ser Leu Thr Glu Ser Gly Ala Ser Cys Leu Pro Trp Asn Ser Met Ile		
207	195	200	205
208	Leu Ile Gly Lys Val Tyr Thr Ala Gln Asn Pro Ser Ala Gln Ala Leu		
209	210	215	220
210	Gly Leu Gly Lys His Asn Tyr Cys Arg Asn Pro Asp Gly Asp Ala Lys		

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211	225	230	235	240
212	Pro Trp Cys His Val Leu Lys Asn Arg Arg	Leu Thr Trp Glu Tyr Cys		
213	245	250	255	
214	Asp Val Pro Ser Cys Ser Thr Cys Gly	Leu Arg Gln Tyr Ser Gln Pro		
215	260	265	270	
216	Gln Phe Glu Ile Lys Gly Gly	Leu Phe Ala Asp Ile Ala Ser His Pro		
217	275	280	285	
218	Trp Gln Ala Ala Ile Phe Ala Lys His Arg Arg	Ser Pro Gly Glu Arg		
219	290	295	300	
220	Phe Leu Cys Gly Gly Ile Leu Ile Ser Ser	Cys Trp Ile Leu Ser Ala		
221	305	310	315	320
222	Ala His Cys Phe Gln Glu Arg Phe	Pro Pro His His Leu Thr Val Ile		
223	325	330	335	
224	Leu Gly Arg Thr Tyr Arg Val Val	Pro Gly Glu Glu Gln Lys Phe		
225	340	345	350	
226	Glu Val Glu Lys Tyr Ile Val His Lys	Glu Phe Asp Asp Asp Thr Tyr		
227	355	360	365	
228	Asp Asn Asp Ile Ala Leu Leu Gln Leu Lys Ser Asp Ser Ser Arg Cys			
229	370	375	380	
230	Ala Gln Glu Ser Ser Val Val Arg Thr Val	Cys Leu Pro Pro Ala Asp		
231	385	390	395	400
232	Leu Gln Leu Pro Asp Trp Thr Glu Cys	Glu Leu Ser Gly Tyr Gly Lys		
233	405	410	415	
234	His Glu Ala Leu Ser Pro Phe Tyr	Ser Glu Arg Leu Tyr Glu Ala His		
235	420	425	430	
236	Val Arg Leu Tyr Pro Ser Ser Arg	Cys Thr Ser Gln His Leu Leu Asn		
237	435	440	445	
238	Arg Thr Val Thr Asp Asn Met Leu Cys Ala Gly	Asp Thr Arg Ser Gly		
239	450	455	460	
240	Gly Pro Gln Ala Asn Leu His Asp Ala Cys Gln Gly	Asp Ser Gly Gly		
241	465	470	475	480
242	Pro Leu Val Cys Leu Asn Asp Gly Arg	Met Thr Leu Val Gly Ile Ile		
243	485	490	495	
244	Ser Trp Gly Leu Gly Cys Gly Gln Lys Asp Val Pro Gly Val	Tyr Thr		
245	500	505	510	
246	Lys Val Thr Asn Tyr Leu Asp Trp Ile Arg Asp Asn Met Arg Pro			
247	515	520	525	
250	<210> SEQ ID NO: 4			
251	<211> LENGTH: 290			
252	<212> TYPE: DNA			
253	<213> ORGANISM: Homo sapiens			
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257	cagactgtac ccatccagcc	gctgcacatc acaacattta	cttaacagaa cagtcaccga	120
258	caacatgctg ttgtctggag	acactcggag	cggcggccca caggcaaact	180
259	ctgccaggc gattcggag	gccccctgggt	gtgtctgaac gatggccgca	240
260	gggcatcatc agctggggcc	tgggctgtgg	acagaaggat	290
262	<210> SEQ ID NO: 5			
263	<211> LENGTH: 290			

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/705,633A

DATE: 10/07/2004

TIME: 09:37:02

Input Set : A:\568.1D1.TXT

Output Set: N:\CRF4\10072004\J705633A.raw

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